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ABSTRACT

One of the most important educational reforms related to secondary education in Taiwan is the planning of comprehensive high schools. The impetus for their establishment has come from several sources, including increased educational alternatives, integration of academic and vocational education resources to upgrade the quality of education, the combination of the objectives of academic and vocational education, and the flexibility of curriculum to meet students' needs for developing their career potential. From the viewpoint of curriculum design, the important goals should include provision of meaningful educational program alternatives for students not ready to commit to an occupational or college preparatory route, integration of academic and vocational education programs, and delay of students' differentiation in learning programs. Beginning with the 1996 fall semester, comprehensive high school programs require 160 credits for graduation. An important characteristic is the program flexibility in taking courses, learning years, and grading system. Comprehensive high schools are allowed to develop their own curricula and have more control over the implementation. Because such programs increase teachers' workloads, some teachers need inservice training to get a second or third teaching specialty. Occupational programs and facilities should be reorganized and the career guidance function should become a priority for the placement office. (YLB)

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Comprehensive High School: An Effective Way to Integrate Academic and Vocational Education in Taiwan, Republic of China

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Abstract

Comprehensive high school has become a vehicle in current educational reform movements in Taiwan. Since the 21st century will be characterized by high technology and information, the Seventh National Education Committee recommended a number of educational reforms to cope with the future changes. One of the most important reforms related to secondary education is the planning of comprehensive high schools. In a broad view, comprehensive high school curricula offer the potential for improved education to all senior high school students who are not ready to commit to either an occupational or the traditional college prep goal.

The impetus for improving secondary education by integrating vocational and academic programs has come from a number of sources, including: the increase of educational alternatives, the integration of academic and vocational education resources to upgrade the quality of education, the combination of the two educational objectives, and the flexibility of curriculum to meet students' career development needs and to help students explore career potentials. This presentation will address the rationale for promoting comprehensive high schools as well as the planning and implementation details.

Keywords: comprehensive high school, academic education, vocational education.

In June 1994, the Seventh National Education Committee recommended a number of educational reforms to cope with the future social and technological changes. One of the most important reforms related to secondary education was the planning of comprehensive high schools to provide multiple program choices for secondary students, in addition to academic and vocational curricula existing respectively in high schools and vocational technical schools. In order to respond to the recommendation, the Ministry of Education in Taiwan, Republic of China, decided to plan experimental comprehensive high school programs. They offer the potential for improved education to all senior high students who are not ready to commit to either an occopational or the traditional college prep goal. After several related research projects were conducted, in August 1996, there were 19 secondary schools including high schools and vocational techincal schools chosen to participate.in the experement

According to the consensus reached by some experts, a comprehensive high school should function to provide academic, vocational, and genenal courricula for senior high students who are not ready to make their career commitment. During the learning processes, through the integration, exploration, and differentiation types of curricula, and special guidance counceling programs, students can delay their educational choices until the beginning of grade 12. For those who make their educational choices earlier, the schools' learning environments should foster broader learning alternatives to increase the flexibility of their future career development.

Eventually, 18 schools began their comprehensive high school programs during the fall semester of 1996. The project will be ended in the year of 2001. Formative and summative evaluations will be taken periodically for review.

The Rationale

Equal educational opportunity and more solid individual career development were inherited among the most important rationales for comprehensive high schools from the historical development viewpoint. However, in Taiwan, the impetus for the establishment of comprehensive

high schools has come from several sources, including: the incresse of educational alternatives, the integration of academic and vocational education resources to upgrade the quality of education, the combination of the two educational objectives, and the flexibility of curriculum to meet students' needs for developing their career potentials. First, the need for increasing educational alternatives is because the current secondary education system only accommodates two types of educational programs (academic and vocational), and comprehensive high schools can give students more eductational choices. Secondary students need more flexible educational opportunities to cope with future change. Hedrick Smith (1995), a Pulitzer Prize-winning journalist, in his book, "Rethinking America", described the nature of the change. .He maintained "that flexible production is more efficient than mass production and that there is not opposition between high quality and low cost as in the old system " (Smith, 1995). These pradigm shifts should become a solid base for educators to plan more flexible educational alternatives for students at the secondary level.

During the fall semester of 1995, the student number at high schools reached 255, 387 and the number at vocational schools was 523, 412. The ratio of vocational students to all secondary students was around 67.2%. By comparing with the ratios of vocational students at the secondary level in France (22.2%), British (10.5%), Korea (18.1%), and Japan (13.2%), our ratio is much higher than those in other conntries. This means that we still need to offer more educational althernatives in order to perpetuate students' flexible abilities which has become crucial to employment requirements today (Chang,1994).

The second reason for implementing comprehensive high school programs is the integration of academic and vocational education resources to upgrade the quality of secondary education. Comprehensive high school students will have a traditional general academic program at grade 10 to learn basic academic subjects. During grades 11 and 12, students can decide to enter an academic or vocational or general program, and at the same time, they can explore a variety of learning contents for a broader view. Thus, the quality of secondary education can be improved, especially when hands-on vocational education subjects combine with some academic subjects, and make learning more meaningful and practical.

The third reason for creating comprehensive high school programs

is the combination of the two educational objectives. The major objective of an academic program at the secondary level is to educatie students for entering colleges or universities, while that of a vocational education program is to prepare them for gainful employment. Because comprehensive high school programs can substantially integrate both academic and vocational education subjects, students who are vocational bond can get more fundamental knowledge to strengthen their basic abilities, such as reading, writing arithmetics, problem solving, and employment skills while other students can better explore their career experiences through occupational subjects (Lui, 1995).

The fourth reason for adopting comprchensive high schools is the flexibility of curriculum to meet students' career development needs and to help them explore their career potentials. Comprehensive high school programs require a minimum of 160 credits for graduation. The curricular contents include Chinese, foreign language, social studies, natural science, physics, arts, life experience, extracurriclar activities, and occupation. The program offering contains both required and elective courses. As long as students meet the graduation requirements, they can graduate in as short as two years or up to six years. Therefore, the flexibility of curriculum paves the way for exploring students' potentials and nurturing a smoother career development path, especially with the assistance of guidance counselors.

The Planning Stage

From the viewpoint of curriculum design, the most important goals inculde: (a) to provide meaningful educational program alternatives for students who are not ready to commit to either an occupational or the traditional college prep route, (b)to integrate academic and vocational education programs to contribute to better learning environments and more educational opportunities, and (c) to delay students' differentiation in learning programs. Based on the expected goals set for comprehensive high schools and the results of a comprehensive high school planning project (Huang, 1995), a group of consulting experts was organized, and then nineteen experimental schools were recommended. As the 19 schools began to prepare for implementing comprehensive

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high schools programs, information about these schools was released to the media for promoting these schools. Schools can choose among the following implementing models: all-in-one schools, cooperation among schools and area vocational centers, lead teacher consortium, and collaboration between schools and training centers. In detail, junior high graduates were qualified to apply for the entrance to schools or to take an entrance examination. The regular learning period was three years. The curriculum contained ten components including Chinese , foreign language, mathematics, social studies, natural science, physics, arts, life experience, extracurricular activities, and occupation. Upon graduation, students will earn high school diplomas and choose on-going education. Furthermore, schools are required to tackle some important career guidance tasks such as career planning, learning guidance, and placement guidance. On the other hand, teachers' in-service training programs should be designed to facilitate the implementation of comprehensive high schools. The experimental project will be reviewed in a period of five years for further implementation.

How It Works

Beginning with the 1996 fall semester, comprehensive high school programs require 160 credits for graduation. The program flexibility in taking courses, learning years, and grading system has become an important characteristic of this type of programs compared with those of the other secondary education programs . The Ministry of Education mandated students to take some required courses equivalent to 64 credits. In addition, schools' required credits range from 0 to 16. Ten subjects mentioned in the previous section are the comprising components of such programs. In the programs, students can choose one of the three pathways in their sophomore or senior year , i. e. , vocational bound, general bound, and college prep routes. Students who are vocational bound must take a series of occupational courses, equivalent to 40 credits of which 26 credits should contribute to occupational core courses, in order to major in a specific occupational field (Ministry of Education , 1995; United Daily News, 1996)..

Comprehensive high schools are allowed to develop their own

curricula , and have more control over the administration of implementing comprehensive high schools. Flexibility is the key at the implementation stage. Because of the program flexibility, school authorities need to plan carefully on student recruitment, learning years, curriculum design, staffing, teaching facilities, the student evaluation system, and graduation requirements. So far, each school developed its own implementation strategy. The effects are still to be observed (Hu, 1996; Wu, 1995).

The all-in-one type of the comprehensive high school means to implement the programs in each individual school without involving other institutions in the effort. It is more common so far because doing so is easier. Consequently, in these schools, some teachers need to receive in-service training. At the same time, occupational programs and facilities should be reorganized and the career guidance function should become a priority for the placement office.

Conclusion

Due to the conceptual change in secondary education to implement comprehensive high schools in addition to the traditional two types of secondary education, i.e., the vocational and academic routes, some possible obstacles can be observed. Some people simply do not like to change. Implementing such programs requires curriculum designers, and increases extra teachers' load for teaching subjects. Therefore, some teachers need to receive in-service training in order to get a second or third teaching specialty. Facility rearrangement also becomes imperative and urgent in the process. Frequent students' course advising and career guidance tasks will become a burden to the faculty. After all, the administration needs to be realigned because of the dramatic curricular change (Keller,1955; Lui,1995).

In order to avoid the above disadvantages of implementing comprehensive high school programs, some measures need to be taken. Conceptual change can be fulfilled in part by publicizing the comprehensive high school features to potential students, their teachers, and the public. The experimental schools can also collaborate with other schools in curriculum design, teachers in-service training, experience

sharing, and educational resources. Furthermore, the career guidance function at school needs to be strengthened to meet the ample needs of students' career development. Lastly, organizational change to increase the flexibility of schools can perpetuate a good environment for implementing such programs. The comprehensive high school is a part of educational reform at the secondary level in Taiwan. Since economic, political, social, cultural, and technological changes have occurred so rapidly, educational reform such as this is an effective way to prepare students to cope with the changes. However, at the implementation stage, incongruity in schools may happen frequently. Comprehensive high schools deserve thoughtful review and constant improvement.

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